

## REMARKS

Claims 1-6, 8-31 are pending in the application. Claims 1-6, 8-12 and 21-24 are rejected. Claims 13-20 and 25-31 are objected to. Claim 3 has been amended to correct a typographical error.

Applicant acknowledges and appreciates that the arguments relating to the restriction requirements have been fully considered and have been found persuasive and the restriction requirements have been withdrawn. Applicants also acknowledge that the rejection under 35 U.S.C. 102, in light of U.S. Patent 4,620,069 (*Godwin*) has also been withdrawn.

### §103 Rejections

In the present Final Office Action, the Examiner rejects claims 1-6, 8, and 9-12 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,910,768 (*Sues*) in view of *IEEE Standard Test Procedures for Measuring Longitudinal Balance* [ANSI/IEEE Std 455-1985] (*IEEE Std 455-1985*). Applicant respectfully traverses this rejection.

Applicant respectfully asserts that *Sues* and *IEEE Std 455-1985* do not teach, disclose or make obvious all of the elements of claim 1 of the present invention. In the Final Office Action dated October 5, 2007, the Examiner asserts that gain adjustment is “basically” the amplitude adjustment of a signal. *See* page 2 of the Final Office Action. The Examiner also cites the Dictionary of IEEE Standard Terms to support such arguments. Firstly, there is no date-citation as to the Dictionary IEEE Standard Terms that was used and, secondly, the dictionary definition of the term “balance circuit” does not support the Examiner’s arguments. In response to the Examiner’s points, Applicant respectfully asserts that *Sues* simply does not disclose or make obvious determining a particular gain. Regardless of the Examiner’s arguments that the gain

adjustment signal is basically the amplitude adjustment is besides the point, *Sues* does not disclose or make obvious examining the gain of a signal. Claim 1 calls for determining the difference between the respective gains of the first and second portions to determine whether the differences are outside a predetermined range.

Regardless of the Examiner's arguments in the Final Office Action as to whether amplitude adjustment is "basically" the same as gain adjustment (see Response to Arguments in the Final Office Action dated October 5, 2007), *Sues* simply does not make obvious determining the respective gains of the first and second portions of a differential signal. Further, ***IEEE Std 455-1985*** does not make up for this deficit. Therefore, the combination of *Sues* and ***IEEE Std 455-1985*** does not make obvious all of the elements of claims of the present invention, as described in further details below.

Applicants respectfully assert that *Sues*, ***IEEE Std 455-1985***, and/or their combination do not teach or disclose all of the elements of claims of the present invention. In order to establish a *prima facie* case of obviousness, the Examiner must consider the following factors: 1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the teachings; 2) there must be a reasonable expectation of success; and 3) the prior art reference(s) must teach or suggest all the claim limitations. MPEP § 2143 (2005) (citing *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991)). In making an obviousness rejection, it is necessary for the Examiner to identify the reason why a person of ordinary skill in the art would have combined the prior art references in the manner set forth in the claims. *KSR Int'l Co. v. Teleflex, Inc.*, at 14, No. 04-1350 (U.S. 2007). Applicants respectfully submit that the Examiner

has not met this burden. If fact, as provided below, Applicants illustrate that *Sues* and ***IEEE Std 455-1985*** are incompatible and those skilled in art would not combine them and make all of the elements of claims of the present invention obvious. Accordingly, Applicants respectfully submit that *prima facie* case of obviousness has not been established in rejecting claims 1-6, 8 and 9-12.

Claim 1 of the present invention calls for determining the difference between the respective gains of the first and second portions and modifying at least one of the gains based upon a comparison. Simply adjusting the phase and the amplitude of the longitude signal such that they are balanced, does not read upon these elements. *See* col. 4, lines 56-61. In contrast to the disclosure of *Sues*, claims of the present invention call for modifying the gain by determining the respective gains of the first portion and the second portion of a differential signal. *Sues* simply does not disclose determining any type of a gain and performing any type of adjustment of the gain. *Sues* is directed to reducing imbalance of a tip and ring signal. *Sues* discloses determining the amplitude and phase differences of a differential signal and adjusting the amplitude and the phase to produce a perfectly balanced longitude signal. *See* col. 4, lines 15-58. Clearly, the Examiner fails to point to any disclosure in *Sues* that anticipates the determination of a particular gain. For example, in order to satisfy the element of receiving a first portion of the differential signal and determining the gain associated with the first portion, the Examiner merely cites, column 3, lines 61-67, which merely refers to the reception of a tip and ring signal. No such disclosure exists in the Examiner's citation or anywhere in *Sues* that would anticipate or make obvious the determination of a particular gain. ***IEEE Std 455-1985*** does not make for these deficits.

*IEEE Std 455-1985* is directed to a calibration relating to balancing the internal impedance of the driving test circuit. *IEEE Std 455-1985* does not disclose calibration of a gain, as called for by claims of the present invention. Simply because *IEEE Std 455-1985* discloses “calibration” does not mean that it discloses or makes obvious the calibration of the gain, as called for by claims of the present invention. Further, as described above, *Sues* is missing more than just the calibration element of the claims. Therefore, the combination of *IEEE Std 455-1985* and *Sues* do not make obvious all of the elements of claim 1 of the present invention. Further, without using improper hindsight reasoning, those skilled in the art would not combine *IEEE Std 455-1985* and *Sues* to make obvious all of the elements of claims of the present invention. The Examiner is using hindsight reasoning, in light of the claims, to combine the teachings of *IEEE Std 455-1985* and *Sues* argue obviousness of the claims. In fact, the Examiner fails to point to any motivation that one skilled in the art would have had based upon the disclosure in the cited prior art, that would lead a person skilled in the art to make obvious the elements of claim of the present invention. However, as described above, even if *IEEE Std 455-1985* and *Sues* were combined all of the elements of claim 1 of the present invention would not be made obvious. Further, the Examiner fails to show that there is a reasonable expectation of success if *IEEE Std 455-1985* and *Sues* were to be combined based upon their disclosures. The Examiner failed to identify the reason why a person of ordinary skill in the art would have combined the prior art references in the manner set forth in the claims, as required by *KSR*. See *KSR Int'l Co. at 14*. Therefore, the Examiner has failed to show any one of the requirements for providing a *prima facia* showing of obviousness of claim 1 of the present invention. Therefore, claim 1 is allowable.

Additionally, claim 9 calls for an apparatus that comprises means for receiving a first portion of a differential signal and determining a gain, as well as determining the gain of a second portion of the differential signal, means for determining the difference between the respective gains and means for modifying at least one of the gains. As described above, *Sues* simply does not disclose determining the gains and comparing them and modifying one of the gains for at least the reasons cited above. *IEEE Std 455-1985* does not make up for this deficit. Further, claim 10 calls for a calibration unit that is capable of determining the gain associated with a first and a second portion of a signal and adjusting at least one of the gains based upon that difference. As described above, *Sues*, *IEEE Std 455-1985* and/or their combination do not teach or make obvious determining the gain associated with a first and a second portion of a signal and adjusting at least one of the gains based upon that difference. Therefore, for at least the reasons cited above claims 10 is not taught, disclosed, or make obvious by *Sues* and/or *IEEE Std 455-1985*.

Independent claims 1, 9, and 10 are allowable for at least the reasons cited above. Further, dependent claims 2-6 and 8, which depend from independent claim 1, and dependent claims 11-20, which depend from claim independent claim 10, are also allowable for at least the reasons cited herein.

The Examiner also rejected claims 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Sues* in view of *ANSI/IEEE Std 455-1985* and further in view of U.S. Patent No. 6,724,880 (*Lynch*). Applicant respectfully traverses this rejection.

Contrary to Examiner assertions in the Final Office Action, Applicant respectfully asserts that the combination of *Sues*, *IEEE Std 455-1985* and *Lynch* do not make obvious all of the

elements of claims 21-24 of the present invention. The Examiner cites *Lynch* to make obvious the element of the line card of claim 21. However, as described above, the combination of *Sues* and *IEEE Std 455-1985* do not make obvious other elements not found in *Lynch*, such as a line card capable of performing a calibration of a gain that includes determining a difference between a gain associated with a first portion of a differential signal and a gain associated with a second portion of a differential signal to determine the difference between the respective gains. Adding the disclosure of *Lynch* does not make up for this deficit. Also, the Examiner is using improper hindsight reasoning, in light of the claims, to combine the teachings of *IEEE Std 455-1985*, *Sues*, and *Lynch* to argue obviousness of the claims. As noted above, in making an obviousness rejection, it is necessary for the Examiner to identify the reason why a person of ordinary skill in the art would have combined the prior art references in the manner set forth in the claims. *KSR Int'l Co.* at 14. The Examiner has failed to provide such reasoning. Additionally, as described above, even if *Sues*, *IEEE Std 455-1985* and *Lynch* were combined all of the elements of claim 21 of the present invention would not be taught or make obvious.

Claim 21 calls for a system that comprises a line card, which is capable of performing a calibration of a gain, which includes determining the respective gains of a first and a second portion of the differential signal. Claim 21 also calls for determining their difference and adjusting at least one of the gains based upon the difference, for at least the reasons cited above. As described above, the combination of *Sues* and *IEEE Std 455-1985* simply does not disclose determining the respective gains of a first portion and a second portion of a differential signal, determining their difference and modifying at least one of the gains based upon the difference. The simple discussion of adjusting the amplitude and phase of a particular signal in *Sues* does

not anticipate the elements of claim 21, as described above. Therefore, *Sues* and *IEEE Std 455-1985* do not make obvious various elements of the claimed invention including the line card. Therefore, simply adding the disclosure of *Lynch* to provide the line card element does not make up for the deficit of the combination of *Sues* and *IEEE Std 455-1985*. *Lynch* does not disclose determining the differential respective gains of the first and second portions of the differential signal, and as described above, *Sues* and *IEEE Std 455-1985* do not make obvious these elements. Therefore, the combination of *Lynch*, *Sues* and *IEEE Std 455-1985* does not make obvious all of the elements of claim 21 of the present invention.

Further, those skilled in the art, without using improper hindsight reasoning, would not combine the teachings of *Sues*, *IEEE Std 455-1985* and *Lynch* to make obvious all of the elements of claim 21 of the present invention. Simply because both cited prior art references are directed to communications circuits does not support a contention that the detailed elements of claims of the present invention would be made obvious by their combination. In fact, the Examiner fails to point to any motivation that one skilled in the art would have had based upon the disclosure in the cited prior art, that would lead a person skilled in the art to make obvious the elements of claim 21 of the present invention. *Lynch* is merely directed to implementing an N:1 sparing arrangement to connect a number of secondary lines to a bus, based upon a control signal. In contrast, *Sues* is directed to adjusting the amplitude and the gain of a differential signal to perfectly balance a differential signal, and *IEEE Std 455-1985* is merely directed at calibration of internal impedance. Therefore, there is no disclosure, without using improper hindsight reasoning, that would prompt one skilled in the art to combine *Lynch*, *Sues* and *IEEE Std 455-1985* to make obvious all of the elements of claim 21 of the present invention.

Further, the Examiner fails to show that there is a reasonable expectation of success if *Lynch, Sues* and *IEEE Std 455-1985* were to be combined based upon their disclosures. Therefore, the Examiner has failed to show any one of the three required prongs for providing a *prima facia* showing of obviousness of claim 21 of the present invention. Further, as described above, even if *Lynch, Sues* and *IEEE Std 455-1985* were combined, all of the elements of claim 21 of the present invention are not made obvious. Accordingly, claim 21 is allowable.

Independent claim 21 is allowable for at least the reasons cited above. Further, dependent claims 22-31, which depend from independent claim 21, are also allowable for at least the reasons cited herein.

**Allowable Subject Matter**

Applicant acknowledges and appreciates that the Examiner has indicated that claim 13-20 and 25-31 indeed contain allowable subject matter. Further, in light of the arguments presented herein, other pending claims also contain allowable subject matter and, therefore, all pending claims of the present invention are allowable.

Reconsideration of the present application is respectfully requested in view of the amendments and arguments set forth herein.

In light of the amendments and arguments provided herein, Applicant respectfully asserts that claims 1-6 and 8-31 of the present invention are allowable. Accordingly, a Notice of Allowance is respectfully solicited.

For at least the aforementioned reasons, it is respectfully submitted that all pending claims are in condition for immediate allowance. The **Examiner is invited to contact the**

**undersigned attorney** at (713) 934-4069 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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